Defense Finance and Accounting Service (DFAS)

Systems Integration and Implementation Plan

(Summary)

Foundation for the Future

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1. INTRODUCTION

The Defense Finance and Accounting Service (DFAS), activated in January 1991, serves as the primary finance and accounting (F&A) agency for the Department of Defense (DoD). DFAS accounts for the worldwide operations and multidisciplined appropriations of the DoD.

Since activation, DFAS has pursued a fast track to manage and consolidate the 324 F&A systems acquired from the military departments and defense agencies. As depicted in Figure 1, the Agency's initial focus was to reduce the number of systems through consolidation. By the end of November 1999, DFAS reduced the number of Legacy F&A systems to 83. DFAS is currently pursuing a consolidation goal that reduces the remaining systems to 30 or fewer by the end of FY05. In the long-term, achieving an efficient Federal Financial Management Improvement Act (FFMIA) compliant environment requires defining and implementing an F&A architecture that emphasizes systems integration. Consequently, the Agency has undertaken multiple initiatives to define an integrated F&A architecture and to establish the objective FFMIA compliant systems integration environment.

In 1996, the Defense Accounting Systems (DAS) Program Management Office (PMO) was established to plan and manage the consolidation, modernization, and integration of DFAS accounting systems. The DAS PMO has evolved to become the DFAS System Integration Directorate (DFAS HQ/I), with responsibilities that include both F&A systems. Under the direction of the Under Secretary of Defense (USD) (Comptroller) and DFAS Director, and in collaboration with the other DFAS Directorates, DFAS HQ/I plans and manages the migration of DFAS F&A systems.

1.1 Purpose

This document, the *DFAS Systems Integration and Implementation Plan (SIIP)*, is a high-level plan for senior management and program managers that describes how DFAS proposes to pursue a systems integration strategy to achieve FFMIA-compliant F&A systems within the Defense Information Infrastrucure (DII) environment. This environment will include an information infrastructure, known as the DFAS Corporate Information Infrastructure (DCII). The DCII major components are the DFAS Corporate Database (DCD), the DFAS Corporate Warehouse (DCW), the DFAS Corporate Repository (DCR), and the DCII-compliant F&A applications. In summary, the purpose of the *DFAS SIIP* is to outline how all of these components will integrate -- along with consolidated, reengineered applications -- to share information and form the single, unified, standard, FFMIA-compliant environment.

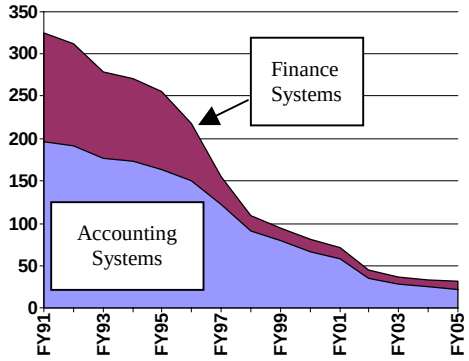

Figure 1. DFAS Systems Integration.

1.2 Scope

The strategic direction contained in this plan addresses:

- Establishment and evolution of the objective environment to include the DCII;
- Consolidation of legacy systems and reengineering/integration of DFAS F&A systems into the objective environment; and
- Migration of feeder systems (i.e., non-DFAS mixed systems) that interface with DFAS F&A systems to enable the accomplishment of the DoD financial services mission.

This plan addresses the ten-year period from FY99 to FY08, with near-term being the initial two-year period (FY99 and FY00), mid-term being the next four-year period (FY01 to FY04), and long-term being the last four year period (FY05 to FY08). Collectively, the near and mid-terms address the same six year period covered by the FY99 Defense Program

Objective Memorandum (POM) budget. The long-term period addresses out-years, yet to be addressed by the Defense Planning, Programming, and Budgeting System (PPBS) process.

Section Two of this document characterizes the migration environment for DFAS F&A systems implementation planning. It identifies and relates core finance and accounting functions, DFAS Mission Support Areas (MSAs), current legacy systems implementing F&A functionality, migratory systems, and objective environment systems. Further, Section Two provides a high level overview of objective environment requirements, summary discussions of initiatives and concepts to be implemented, and a graphical depiction of the expected FY05 DFAS F&A system.

Section Three briefly discusses the migration strategy being pursued to obtain an integrated DCII. The overall strategy ensures DFAS complies with applicable federal financial management requirements while progress towards the objective environment continues.

Section Four proposes a Work Plan to implement the migration strategy. Accompanying the Work Plan is a summary level schedule for each of the initiatives identified to achieve the target architecture and the interim migratory architecture.

1.3 Intended Use

This plan should be used to stand up the principal components of the DCII. In the near term, this translates to efforts associated with the DCD and enabling migratory systems. This also includes the identification, definition, and configuration management of the interfaces between the DCD, the DCII, and existing systems such that necessary supporting components are developed and implemented in support of an orderly migration towards the objective environment.

The DFAS SIIP is published in two forms; 1) a Summary that is available on the DFAS intranet, providing top-level information and status, and 2) a detailed version used within DFAS HQ/I for coordination, scheduling, and resource planning.

Publication of DFAS SIIP Summary will be web-based. This will help ensure distribution of timely, accurate information to all management, technical, and functionally oriented readers. Text highlighted and underscored in blue throughout the document provides “hot links” to up-to-date program information.

2. MIGRATION ENVIRONMENT

Migrating from the legacy environment to the new objective environment entails:

- Establishing an initial baseline architecture that describes the current environment,
- Specifying and defining the objective environment,
- Performing analyses leading to identification of work packages necessary to achieve the migration,
- Developing a plan to schedule and fund the effort, and
- Executing the plan.

The manner in which these activities are performed will determine the outcome of the migration. This document uses a Systems Integration Tracking tool, depicted in Table 1, to relate DFAS Core F&A Functions and MSAs. These relationships are further extended to include the systems that compose the current legacy systems, those that become the 30 migratory systems, and ultimately, the systems that will be in the objective environment. The following paragraphs provide further insight into the meanings for each of these terms.

2.1 Baseline and Objective Environment Overview

For the purposes of this SIIP, the current baseline architecture is a "snapshot" of DFAS systems operating as of June 30, 1999. Table 1 lists the legacy systems, and the relationship of these systems to the business oriented DFAS MSAs.

The objective environment architecture will standardize and support core F&A functions. These include:

- *Entitlement Function,*
- *Disbursing Function,*
- *Information Retrieval and Reporting Function,*
- *Accounting Function, and*
- *Budgetary Support Function.*

The objective environment will apply the standard F&A functions to satisfy customer- (e.g., Air Force, Navy) oriented requirements (e.g., financial management) in key areas, called MSAs. Note that MSAs do not necessarily map on a one-to-one basis with standard F&A functions.

Ultimately, the objective environment will implement a single, standard application for each of the F&A MSAs shown in Table 1. However, not all will occur prior to FY08 since Service-unique requirements associated with some of the MSAs (e.g., General Fund Accounting) require that consolidation analyses be performed prior to defining and meeting the single standard application objective.

Table 1 also depicts the decomposition of the core F&A Functions into MSAs as follows:

- *Entitlement Function*
  - Military Pay,
  - Travel Pay,
  - Military and Retiree Annuitant Pay,
  - Transportation Pay,
  - Contract and Vendor Pay, and
  - Civilian Pay.
- *Disbursing Function*
  - Disbursing and
  - Debt Management.
- *Information Reporting and Retrieval Function*
  - Departmental Reporting
    - Financial reporting - the generation of reports that support DFAS fiduciary requirements, budget formulation and execution, fiscal management of programs, and internal and external reporting requirements.
    - Departmental reporting - provides consolidated status reports to the Office of the Secretary of Defense (OSD), military departments, and defense agencies.

- *Accounting Function*
  - Cash Accountability - reports disbursements, reimbursements, deposits and receipts to Treasury, and processes cross disbursed vouchers;
  - Security Assistance - applications to support unique requirements such as foreign military sales;
  - General Fund Accounting - supports appropriated fund accounting for the military departments and defense agencies;
  - Trust Fund - accounting that supports the receipt, obligation, and expenditure of funds that are subject to the specific terms of a trust agreement or authorizing statute. Each trust fund is considered unique, based on the special provisions in the trust agreement or the enabling legislation;
  - Non-appropriated Fund - accounting that supports revenue generating, morale and welfare activities for military departments and defense agencies, such as officer and enlisted clubs, hobby shops, and billeting funds. These activities operate like a private sector business and are supported from fees charged to individuals;
  - Business Fund Accounting - This MSA, also referred to as Defense Working Capital Fund (DWCF), supports a broad spectrum of unique business operations within each of the military departments and defense agencies:
    - printing and publications,
    - public works,
    - research & development,
    - information processing,
    - wholesale supply,
    - retail supply,
    - depot maintenance,
    - logistics support,
    - transportation,
    - distribution depots,
    - commissary operations,
    - financial operations, and
    - reutilization & marketing; and
  - Reconciliation.
  - *Budgetary Support Function.*

Standardization of F&A functions across the MSAs ensures that data, once captured in F&A systems, is treated uniformly to produce consistent financial information and statements.

2.2 Objective Environment Requirements

DoD has documented the Financial Management Regulations to specify the responsibilities of the DoD Agencies and Departments to evaluate and modify their systems to comply with financial management requirements. In January 1998, DFAS published *A Guide to Federal Financial Management Systems* (commonly referred to as the Blue Book), a comprehensive compilation of federal financial management requirements. The Guide is intended to assist managers in planning, designing, enhancing, and implementing financial management systems compliant with applicable requirements. Anticipated Blue Book functional requirements implementation by the 30 migratory systems is shown in Figure 2.

The objective environment incorporates major concepts and initiatives throughout the FY99-08 timeframe. Major concepts being implemented include:

DFAS Corporate Database (DCD) will provide the single, shared data environment for financial systems. The 30 migration systems perform functions that share data to:

a) initiate purchase requests,

b) award contracts,

c) receive purchases,

d) calculate entitlements,

e) pay bills,

Table 1. Systems Integration Tracking.*

Core F&A Functions	Mission Support Areas (MSA)	Current Baseline Legacy Environment[1]		Migratory Systems[2]		Objective Environment	
Entitlement Function	Military Pay	L1	DJMS AC/RC	M1	DIMHRS	1	DIMHRS
		L2	MCTFS				
	Travel Pay	L3	IATS	M2	DTS.PDF	2	Travel Pay System
			DFAS-OW				
	Retirement Pay		ALLOT	M3	DRAS	3	Retirement Pay System
	Transportation Pay		TSS	M4	DTRS.PDF	4	Trans. Pay System
	Contractor/Vendor Pay	L4	MOCAS	M5	DPPS.PDF	5	Contr./Vend. Pay System
		L5	AVEDS				
			SAVES				
		L6	IAPS				
		L51	DISMS				
		L54	SAMMS				
		L7	CAPS				
			STARS (ONE PAY)				
			GTS				
	Civilian Pay			M6	DCPS.PDF	6	Civilian Pay System
Disbursing Function	Disbursing	L8	ADS	M7	DSDS.PDF	7	Disbursing System
		L9	IPC				
		L10	SRD-1				
			DRO				
			DCRM				
			DOPS				
		L11	SNIPS				
			CRISPS				
			RECERT				
			BEBS				
	Debt Management			M8	DDMS	8	Debt Mgnt System

Table 1. Systems Integration Tracking. (continued)*

Core F&A Functions	Mission Support Areas (MSA)	Current Baseline Legacy Environment[1]		Migratory Systems[2]		Objective Environment	
Information Retrieval and Reporting Function	Departmental Reporting	L12	SOF	M9	DDRS.PDF	9	Departmental Reporting System
		L13	GFGL				
		L14	HQARS				
		L15	CDB				
		L16	AFSF				
		L17	IFGL				
		L18	COARS				
Accounting Function	Cash Accountability	L19	CERPS	M10	DCAS.PDF	10	Cash Accountability System
		L20	FRS-ACCTG				
		L21	CRS				
			DIT				
		L14	HQARS				
		L22	IFBGS				
			IBOP				
			MCERRS/ NRS				
		L23	MAFR				
		L54	SAMMS (COTS)				
			DCMS				
			DFRRS				
			DROO				

Table 1. Systems Integration Tracking. (continued)*

Core F&A Functions	Mission Support Areas (MSA)	Current Baseline Legacy Environment[1]		Migratory Systems[2]		Objective Environment	
Accounting Function (cont.)	Security Assistance	L24	DIFS	M11	DIFS-R.PDF	11	Funds Accounting Security Assistance System
			PBAS-OC				
		L80	WAAS				
		L25	WAAS-MOD				
	General Fund Accounting	L83	CEFMS	M12	DJAS.PDF	12	General Fund Accounting System
		L26	CISIL				
		L27	SAAMSS				
		L28	SABERS				
		L29	SOMARDS				
		L30	MTMC-FMS				
		L31	STANFINS				
			DBCAS				
		L32	GAFS	M13	GAFS-R.PDF		
		L79	RAMS				
		L33	SAMIS				
		L76	CAFRMS				
		L77	CUFS				
		L78	NSAGARS				
		L81	DOLFINS				
		L34	CPAS				
		L35	ASIFICS				
		L36	CMCS				
		L37	JOCAS				
		L38	MUMMS	M14	SABRS.PDF		
		L39	STATIS	M15	STARS.PDF		
			PRODS				
			RESFMS				
		L40	NAVFAC2.0 FIS				
		L41	MISIL				

Table 1. Systems Integration Tracking. (continued)*

Core F&A Functions	Mission Support Areas (MSA)	Current Baseline Legacy Environment[1]		Migratory Systems[2]		Objective Environment	
Accounting Function (Cont.)	Defense Working Capital Fund (Also referred to as Business Fund)	L42	IFAS	M16	IFAS.PDF(COTS)	13	Defense Working Capital Funds System
		L82	FAMIS (DAIS)				
		L43	PWCMIS	M17	DWAS.PDF		
				M18	SIFS.PDF		
		L44	UADPSSP E&F	M19	MFCS.PDF		
		L45	UADPS G03/G06				
			UADPS LEVELII SF				
			FIRS				
			SAC207				
			SS				
		L46	SBSS	M20	SMAS		
		L47	FIABS				
			MFMS				
		L74	AMAS				
		L48	STARFIARS-M	M21	CCSS.PDF		
		L49	STARFIARS				
			TUFMIS				
			RASFIARS				
				M22	DLA ERP		
		L50	MSC FMIS	M23	MSC FMS		
				M12	DJAS.PDF [3]		
				M13	GAFS.PDF [3]		
		L51	DISMS	M24	Columbus WCF		
		L52	BOSS				
		L53	DBMS				
		L54	SAMMS				

Table 1. Systems Integration Tracking. (continued)*

Core F&A Functions	Mission Support Areas (MSA)	Current Baseline Legacy Environment[1]		Migratory Systems[2]		Objective Environment	
Accounting Function (cont.)		L55	NRL-NIF	M25	DIFMS.PDF		
		L56	RIMS				
		L57	NOMIS				
		L58	NSWC/CD FS				
		L59	NIFMAS				
			NSWC/DDFMS				
			AFMIS				
			AMRC				
		L60	DMEP				
		L61	SYMIS				
		L62	DMIF-IFGL				
		L63	DMIF-BUDCOST				
		L64	DMIF-LABOR				
		L65	DMIF-I/O				
		L66	DMIF-PRODCOST				
		L67	DMIF-ACTCOST				
		L68	DMIF-JOBORD				
		L69	DMIF-PROJORDR				
		L70	DMIF-IFPGFM				
		L71	DMIF-DEPOTPROD				
		L72	GFMTR				
		L73	DFAMS	M26	FAS.PDF		
		L74	AMAS				
			MFMS				
	Trust Fund Acc'tng	L75	TFAS	M27	TRFND	14	TRFND
	Non-Appropriated Funds Accounting		NAFSAM	M28	NAF	15	NAF
			NAFMIS				
			CFAS				
			MICROCADS				
			NAFISS				
			NAMSDF				
			BLAS				
			NCFAS				
			RAMCAS				
			NAFCPS				

Table 1. Systems Integration Tracking. (continued)*

Core F&A Functions	Mission Support Areas (MSA)	Current Baseline Legacy Environment[1]		Migratory Systems[2]		Objective Environment	
Budgetary Support Function	Funds Distribution		STARS-FDR	M29	PBASFD.PDF[4]		
Integrated Architecture				M30	DCD		DCD
	Reconciliation		ARS		Standard Contract Reconciliation Tool (SCRT)[4]		(Not Needed When DCD is Operational)
			CRS				
			SA-ARS				
			PARS				
			ABS				
			RATS				

*Notes:

1. Numbered Legacy systems (L#) and Migratory systems (M#) as shown on the Inventory of Financial Management Systems (Nov 3, 1999) under the Federal Managers Financial Integrity Act (FMFIA). Unnumbered systems (included for interfacing coordination) are either non-DFAS or have already been deactivated.

2. Migratory systems in Blue are hyper-linked to status descriptions in the ASBP. Migratory systems in Red are in the process of being included in the ASBP descriptions.

3. DJAS and GAFS-R are repeated in DCWF to accommodate the Transportation business area initiative.

4. SCRT is not a designated migratory system, but is included for interfacing coordination.

f) account for cash expended,

g) report results in financial statements, and

h) record results of all of these transactions in the accounting system for financial management purposes.

The DCD incorporates the Defense Finance and Accounting Data Model (DFADM) to describe standard data required to support financial processes. The DCD includes a repository for standard and non-standard data used to create all new financial applications. This concept eventually separates data from applications so that all processes access a single, shared data environment. In the interim, crosswalks convert legacy data into a standard format for sharing with other applications.

Common Line of Accounting used to functionally interpret financial data – the Standard Fiscal Code (SFC) (formerly called the BACC, Budget and Accounting Classification Code). The SFC establishes standard data elements and standard codes to record accounting events. The associated reengineering effort **integrates accounting transactions.** The objective environment is built on the functional concept that a line of accounting (LOA) should be identified once by the initial transaction that authorizes a purchase. This commitment transaction is stored in a shared data environment and subsequent accounting events that occur (i.e., obligations, accruals and disbursements) are linked to the commitment transaction with a unique code. Therefore, the LOA is never entered again.

The ability to uniquely identify the originating transaction and LOA eliminates the Department's problems with intransits, negative unliquidated obligations (NULOs), unliquidated obligations (ULOs), prevalidation, and cross disbursements. All of these problems are a result of an accounting event that is recorded but cannot be traced back to the previous accounting event. For example, a disbursement is made and the obligation is not recorded, or it is recorded under a different line of accounting. In the objective environment, the LOA authorizing the purchase would be accessed in the DCD when the entitlement is computed and disbursement created and would not be duplicated in the subsequent disbursement transaction.

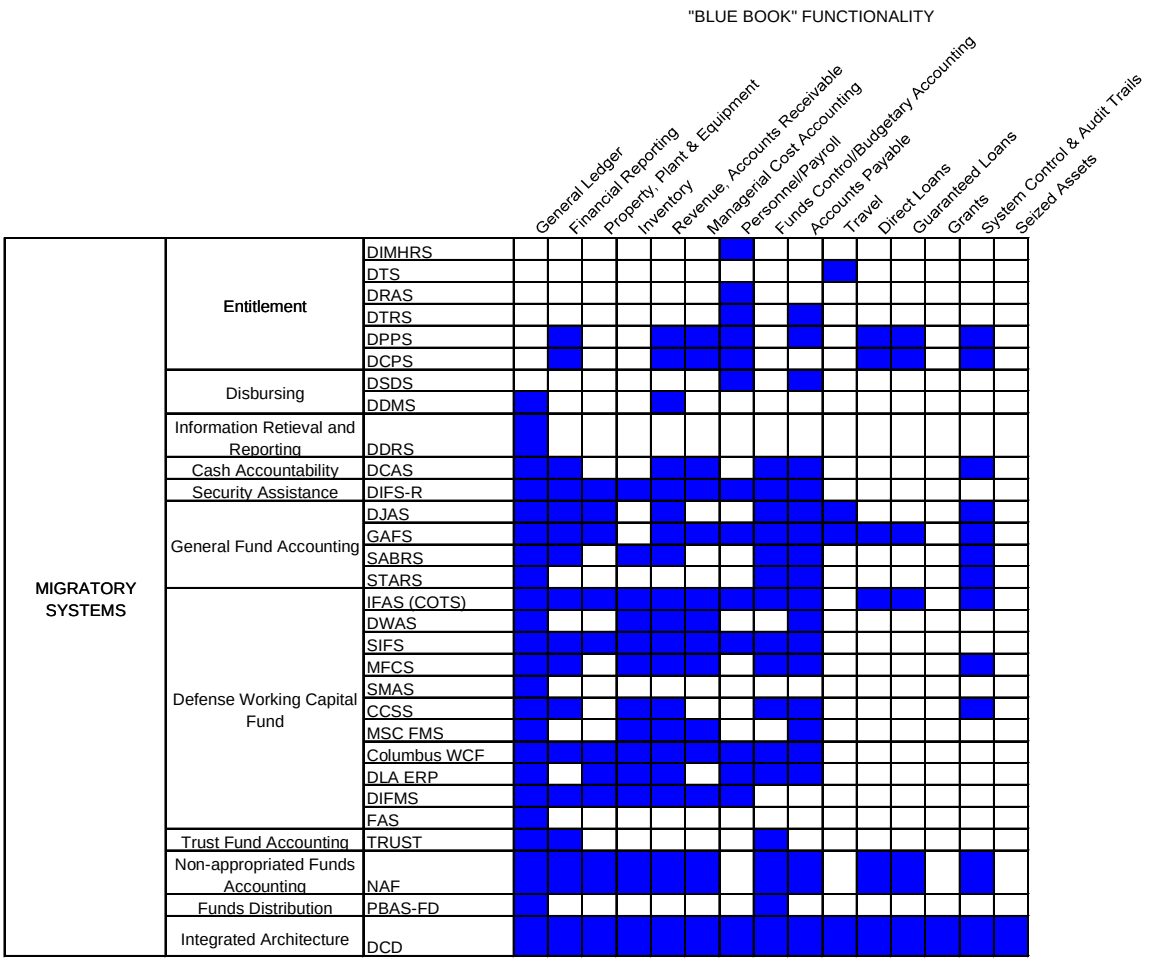

Figure 2. Migratory System Implementation of "Blue Book" Functionality

Standard transactions will be used to interact with the DCD. An inventory of standard transaction postings will uniformly update the standard general ledger (SGL). Transactions crosswalked into the DCD from a legacy environment will trigger a uniform posting to the SGL, thereby meeting FFMIA requirements for a transaction based SGL. SGLs in legacy systems will be eliminated.

Global Edit Table (GET) will contain data elements and data values (fiscal code) identified by the SFC. The GET provides: a) data standardization regardless of the system using the data, b) standard edits regardless of which system uses the data, and c) a universal application of business rules as applied to specific data. When implemented, GET will be the single source of valid values for editing F&A data. Since GET will be able to edit SFC and non-SFC data elements and values, it will facilitate the cross-walking of data between OCE and legacy systems.

The Defense Departmental Reporting System (DDRS) provides a single system to standardize financial data processing and reporting. DDRS will produce financial statements for each service and defense agency, and a consolidated DoD financial statement. It will provide the capability to audit from summary level data reported on statements to the detail transactions

– thereby meeting the FFMIA requirement for a transaction based SGL.

The Defense Cash Accountability System (DCAS) will help solve one of the Department's most critical problems – disconnects between obligations and disbursements which result in negative unliquidated obligations, unliquidated obligations, and unmatched disbursements.

The objective environment will implement the DCII, build upon the Defense Information Infrastructure Common Operating Environment (DII COE), satisfy open system environment (OSE) requirements, and field Joint Technical Architecture (JTA) compliant modules of F&A capability

Feeder Systems: Feeder systems (non-DFAS mixed systems that provide financial information) supporting MSA functional areas also receive, create, accumulate, calculate, and store financial data. Therefore, feeder systems that are critical to financial management are treated as an extension of the F&A system integrated architecture.

- Where feeder systems summarize and transmit financial data to the F&A system architecture, the feeder systems will provide the capability to audit from the detailed transactions to the summary data.
- Where feeder system data must be posted to the accounting system general ledger, the feeder system will transmit summarized data using standard type action codes. The accounting system will generate the appropriate journal entries for the general ledger.
- Where calculations against feeder data are required to generate an accounting event (e.g., depreciation), the feeder system will perform the calculations and transmit the result to the accounting system.

To the extent possible, non-financial data will not be maintained in the F&A applications. The F&A applications will provide accounting data to feeder systems where needed to accumulate the historical cost of plant, property, equipment, and inventory.

DCII Objective Environment: Figure 3 provides a snapshot of the expected F&A system at the end of FY05. By this time, consolidation has resulted in 30 migratory systems. The F&A system is now fully FFMIA compliant. The underlying DCII is providing standards-based services and a shared data environment. In addition, application reengineering is underway to develop the objective environment standard applications previously identified in Table 1.

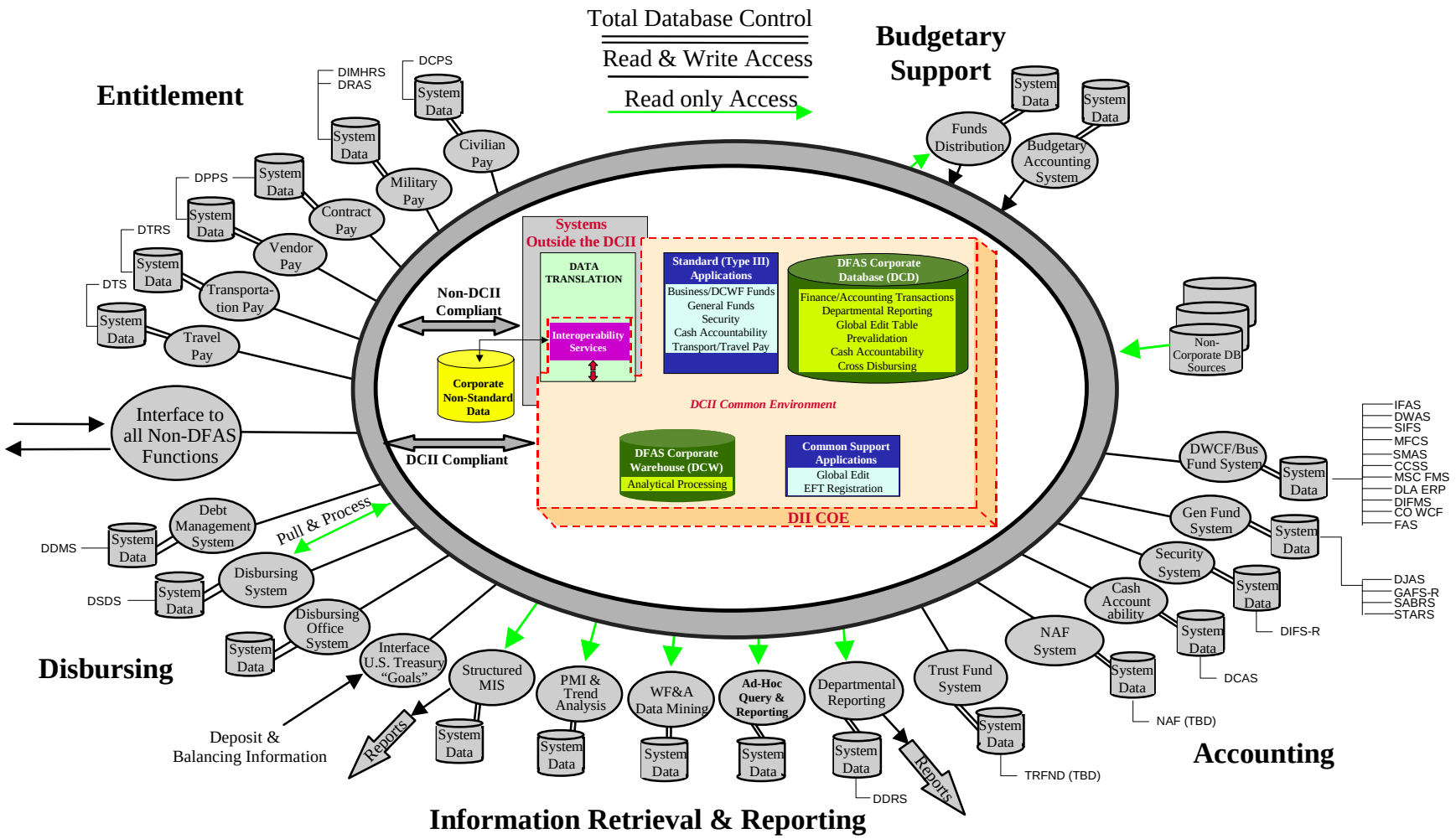

Figure 3. Expected FY05 DFAS F&A Environment

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3. MIGRATION STRATEGY

Business Process Reengineering (BPR) is a disciplined process to: 1) identify current business practices and objectives, 2) decompose these practices into manageable processes that can be analyzed, 3) evaluate alternative processes that may improve the performance relative to the business objectives, and 4) implement the selected objective processes. Typically, BPR efforts produce voluminous information in steps 1 and 2 and get bogged down in step 3 analyses. This symptom can be avoided by establishing realistic constraints upon the objective environment that help reduce the myriad of alternatives and the associated analyses.

Recognizing this, DFAS developed a migration strategy that employs a "best fit" approach to select a system that can be used in the near-term to eliminate numerous legacy systems. This strategy reduces the number of systems to be integrated into an objective environment to a manageable level, provides near-term savings, and reduces the number of systems that must be made FFMIA compliant.

3.1 Migration Stages

The DFAS migration strategy defines three concurrent stages for migrating to the objective environment. These stages coincide with the hierarchical structure of the DFAS Enterprise Work Breakdown Structure (WBS). Thus, work efforts (addressed in detail in Section 4) will be performed, controlled, monitored, and costed at:

- The Systems Consolidation Level – efforts include the planning, design, and consolidation of legacy systems and the implementation of Blue Book functionality to migrate toward the objective environment.
- The Enterprise Level – efforts include planning, design, development, and integration of the DCII components and interfaces.
- The Systems Reengineering Level – efforts include planning, design, and development of DCII compliant applications with Blue Book functionality for each of the MSAs.

At each work level, interface design for objective systems and Feeder Systems is provided along with associated data standardization efforts.

Stage 1 (Systems Consolidation Level) eliminates redundant systems while the DCII environment is being established. This approach provides a smaller universe of systems that must be evaluated to identify all of the requirements to be supported by the objective environment and results in near term savings and improvements that are critical for the financial community. The strategy ensures that DFAS achieves compliance with applicable federal financial management requirements as soon as possible; and at the same time moves toward the objective environment.

Currently, DFAS owns 102 finance and accounting systems (see Table 1, shown previously). Many of these systems use non-standard procedures and practices and are not compliant with Federal accounting and financial management requirements or with DoD technical standards. They were developed based on each Defense Component's unique interpretation of high-level financial management policy, operated on vastly disparate architectures, and employed various degrees of financial management or business area integration.

The Department has selected 30 migration systems that will be upgraded, reengineered, and/or newly acquired to meet the objective environment functional and technical standards. The remaining 72 systems will be eliminated as the functionality of each is replaced by the functionality of the objective environment. The migration systems selected, shown previously in Table 1, will have the capability to support the financial management infrastructure -- the business practices, coding structure, and line of accounting employed by customers -- in the objective environment.

Stage 2 (Enterprise Level) establishes the framework for the objective environment with the creation of the DCD within the DCII. The DCD will establish the database structure based on a relational database design using standard data elements from the Defense Data Dictionary

System (DDDS). Standard transactions will be identified using the Electronic Document Interchange (EDI) transaction sets as the baseline. These transactions will be used to update the SGL based on a set of standard accounting events and postings.

Until applications are reengineered to directly access the DCD, legacy and migration systems will be indirectly interfaced with the DCD. The DCD will maintain crosswalk tables (interoperability services interfaces) in the GET to map (translate) the EDI transactions that contain legacy data to the DCD tables and standard data elements.

Stage 3 (Systems Reengineering Level) reengineers F&A applications by MSA to access the DCD with shared data. Reengineered applications will use standard processes and data compliant with the Blue Book functionality. Scheduling of reengineering efforts will be based on an assessment of functional, technical or operational efficiencies that can be gained through a reengineering effort. Where Commercial-off-the-shelf (COTS) applications are used to standardize functions, application program interfaces (APIs) will be used to provide real-time updates to the DCD database from the COTS database. Feeder systems that need to interface with multiple systems will do so indirectly through interoperability services interfaces with the DCD. Until all functions are reengineered, the DCD will provide the capability to interface with the rest of the non-DCD F&A systems.

3.2 Relationship with the DCII.

Implementing the three-stage migration strategy for the remaining 102 legacy systems is, in itself, a significant scheduling, budgeting, and management effort. However, the *DFAS SIIP* must also accommodate on-going efforts to develop the corporate information infrastructure (i.e., the DCII) implementing the objective F&A environment.

The DFAS HQ/I, in conjunction with multiple organizations, is implementing the integrated F&A system depicted in Figure 4 as part of the DCII. DFAS HQ/I recognizes that successful achievement of the OCE requires more than the architecture depicted in the figure. Therefore, the DCII comprises operating facilities; corporate applications; common support applications; transactional data stores; reporting and analysis data stores; developmental and operational tool repositories; communications facilities; and the policies, procedures, principles, and guidelines that govern them. Thus, the DCII is both a portfolio of systems and an integrated collection of procedures, policies, and standards that provides the following capabilities:

- Centralized Management of Transactional Data;
- Centralized Management of Analysis and Reporting Data;
- Central Development, Maintenance, and Operation Repository;
- Legacy, Non-Standard, and Proprietary Data Access;
- Data Transfer;
- Messaging;
- Security;
- Distributed Processing;
- Translation and Data Cross-Walk;
- Hardware and Software Applications; and
- Common Support Applications.

Figure 4 depicts three types of applications. All DFAS applications, other than common support applications, are assigned to one of three groups, depending on whether they are compliant to DCII requirements and whether they are able to interchange standard data with the DCII through some interoperability service. It is important to note that, during their lifetimes, applications may be different types at different times, according to their migration path. An application could start out as a Type I, then evolve to a Type II, and finally become a Type III.

If a DFAS application is compliant at the mandatory level with the end-state DCII specifications, it is denoted a Type III application. Example applications that might be

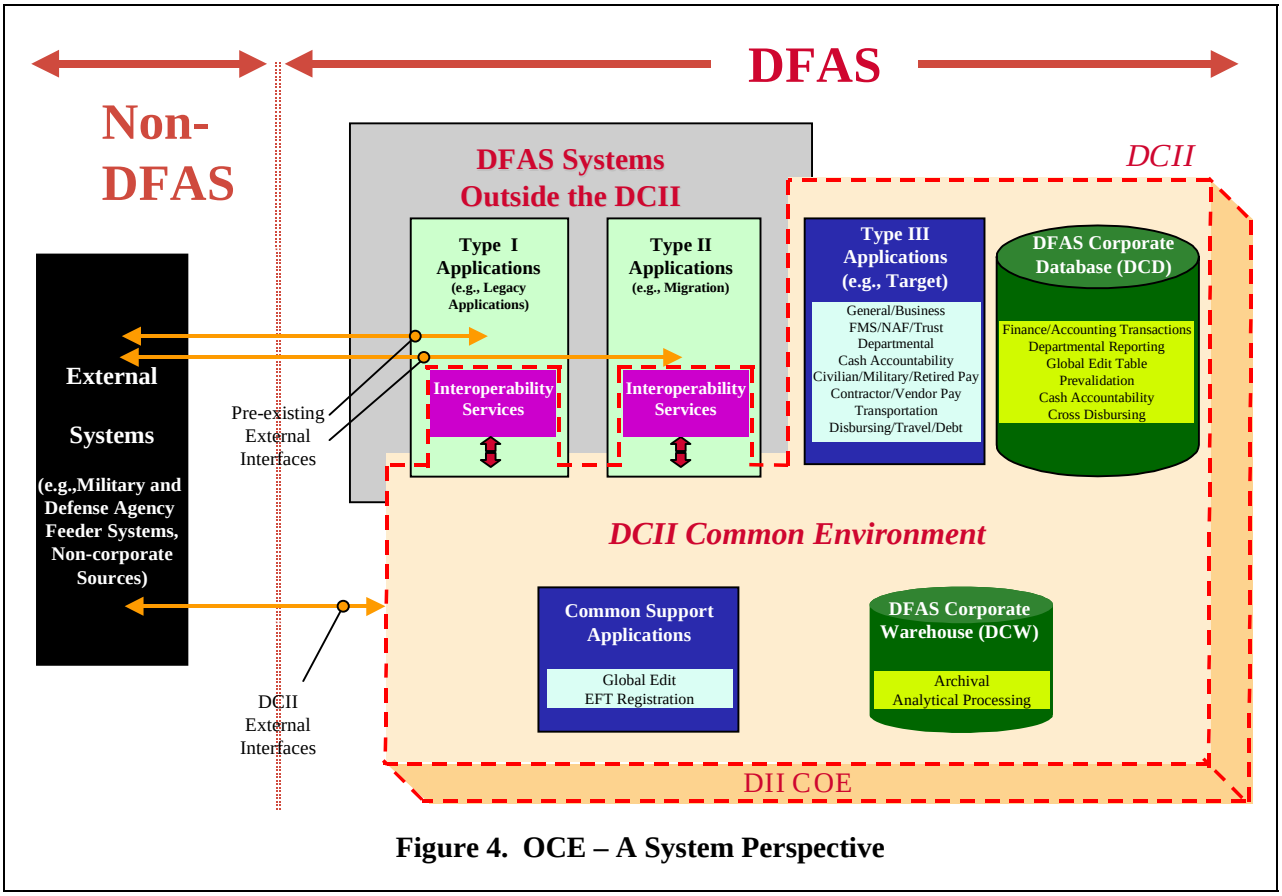

Figure 4. OCE – A System Perspective

Type III are pre-existing DFAS applications (e.g., GAFS-R) that have been modified to be fully compliant to DCII requirements and newly developed applications that are built to be fully compliant from the start.

If not compliant with DCII end-state requirements, an application is either a Type I or Type II. If the application exchanges **standard transactional data** with the DCII, it is defined to be Type II. Examples of Type II applications include:

- partially migrated pre-existing applications whose transactional data are interchanged with standard transactional data in the DCII,
- commercial off-the-shelf (COTS) and government off-the-shelf (GOTS) products whose transactional data are exchanged with the DCII, and
- interim applications developed to maintain non-standard transactional data under DCII management until fully migrated into the DCD.

Finally, if a non-compliant application exchanges **non-standard transactional data** with the DCII, it is defined as Type I. Type I applications can be anything from a completely isolated, proprietary DFAS application that is not interfaced to the DCII in any way, to an application that is interfaced to the DCII and exchanges analysis and reporting data with the DCII. For example, Type I applications can include legacy DFAS applications, migrating applications, COTS and GOTS applications, or any other non-compliant DFAS applications that exchange non-standard transactional data with the DCII.

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4. TOP LEVEL INTEGRATION PLAN

Principal thrusts for near and mid-term DFAS Systems Integration and Implementation Planning are:

- Consolidating legacy Type I systems to provide Type II migratory systems,
- Specifying and controlling system interfaces, and
- Pursuing reengineering to achieve DCII compliant Type III F&A systems.

4.1 Type I Systems Consolidation

Figure 5 is a top-level planning schedule for integration efforts to consolidate legacy systems into the 30 migratory systems. The migratory systems compose the FY05 baseline upon which the Objective Environment will be based for Type III system reengineering. (It should be noted that some non-migratory systems, displayed in red on the chart, are included to aid in interface tracking and coordination at the enterprise level).

The Migratory Architecture identified in Figure 5 shows the 30 migratory systems, categorized within the "Cross-Functional" systems (purple), Entitlement Function (dark red), Disbursing Function (green), and Accounting Function (blue). Legacy systems consolidating into the Migratory Architecture are shown using the same color-coding. These relate directly back to the Current Baseline Environment identified in Table 1.

As consolidation continues, reengineering efforts are initiated (Definition Phase) for the migratory systems to support DCII interfacing (either directly or through interoperability services). Upon completion of consolidation for each of the migratory applications, the Development Phase commences. An Initial Operational Capability (IOC) milestone is reflected in the Migratory Architecture at the completion of development. A Full Operational Capability (FOC) is reflected at completion of deployment activities (to include DCII compliance acceptance testing at all applicable sites). (Note: Type III reengineering efforts are depicted in purple for those enabling systems that provide initial interface definitions and functional capabilities within the DCII.)

4.2 Interface Definition and Control

Interface definition and development activities for Type III applications should be completed by FOC for the migratory systems. However, expediting interface development is crucial to establishing interoperability crosswalk tables and DFAS Application Program Interface (DAPI) development. For this reason, two systems (DPPS and DSDS) have been selected to define and develop many of the core interface definitions.

Figure 6 is a summary-level interface control diagram that begins to relate the DCII, its components, the F&A systems, and the Feeder systems in a composite interface wiring diagram. The diagram depicts the relationship of "items" in various stages of development and the interfaces required during these stages. The area in purple represents the DCII objective environment. The purpose of the diagram is to provide a framework to relate and track all interface definitions throughout the systems integration process. Therefore, this wiring diagram, when completed for each system, is a Baseline Product for Systems Integration. Figure 6 will be used during the systems integration efforts to monitor and track interface definition progress for each of the 30 migratory F&A systems and subsequent Type III applications. Detailed versions of Figure 6 will be used to coordinate identification of interfaces, information exchange requirements (IERs) at the Transaction Type level, and decomposition of IERs to the constituent data elements.

4.3 Reengineering to Type III Systems

Figure 7 provides a top-level flow diagram depicting the work efforts required to plan, define, develop, deploy, and operate DoD systems. Many of these efforts (and associated deliverables) will be required for each of the reengineering efforts performed to achieve the DCII objective environment. However, significant tailoring can be applied to consolidation efforts performed to achieve the migratory systems. Ideally, since the 30 migratory systems may represent interim

instantiations (in some cases) of the final 15 objective systems, it is economically sound to tailor the consolidation efforts with the objective environment in mind. This "pre-planned" tailoring will reduce redundant design and minimize unnecessary consolidation.

The top-level tasks of the DCII Master Schedule are:

1. Manage DCII Phases
2. Manage Data
3. Provide Infrastructure
4. *Manage DCII Business Application Projects*
5. Perform Integration and Test
6. Perform Deployment
7. Support Post Deployment

The *italicized* task (shown as Task 4 in the Master Schedule) is the top-level task associated with DFAS F&A systems consolidation, interface definition, and Type III reengineering efforts. Task 4 schedules are estimated based upon currently baselined information. DFAS project personnel have been detailing specific work efforts within Task 4 (an on-going activity), based upon work templates developed by DFAS. These templates span work efforts necessary to consolidate, design interfaces, and/or reengineer each of the F&A systems.

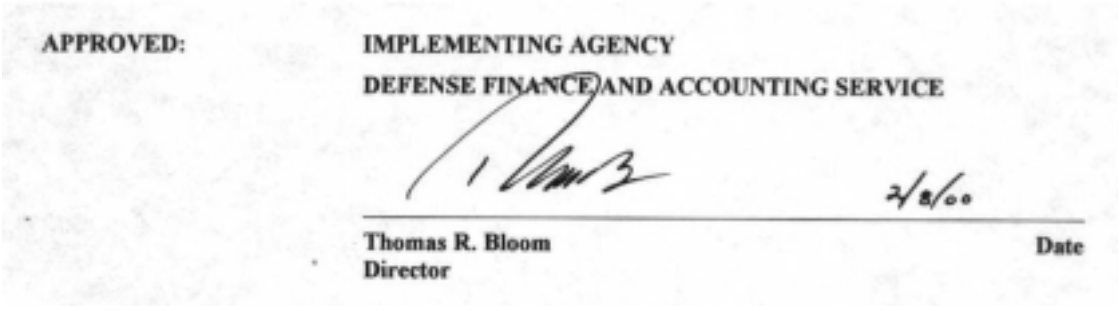
Work efforts include:

- Conduct Acquisition Life Cycle Management
- Conduct Program Management
- Conduct Security Life Cycle Management
- Conduct Quality Program Management
- Conduct Data Management
- Conduct Requirements Determination
- Establish Configuration Management
- Conduct Systems Engineering
- Conduct Test and Evaluation
- Establish Training Program
- Deploy/Implement System
- Terminate Legacy Systems Operations
- Provide Post System Support
- Transition System to Operation & Support
- Conduct Program Completion Activities.

Additional templates have been developed for detailed systems engineering efforts contained within the project work templates. These phased efforts detail required systems engineering work, specifically:

- Project Planning,
- Integration and Standardization,
- Requirements Analysis,
- Design,
- Development, and
- Production.

SUMMARY. This plan will be periodically reviewed and modified as necessary to incorporate the changes resulting from technological, legislation, or departmental direction. Questions or comments regarding this plan should be referred to Bruce Johnson, (703) 607-0173, FAX (703) 607-2126, e-mail bruce.johnson@dfas.mil or Pat Lehtma, (703) 607-5013, e-mail pat.lehtma@dfas.mil .


APPROVED:

IMPLEMENTING AGENCY
DEFENSE FINANCE AND ACCOUNTING SERVICE

2/8/00

Thomas R. Bloom
Director

Date

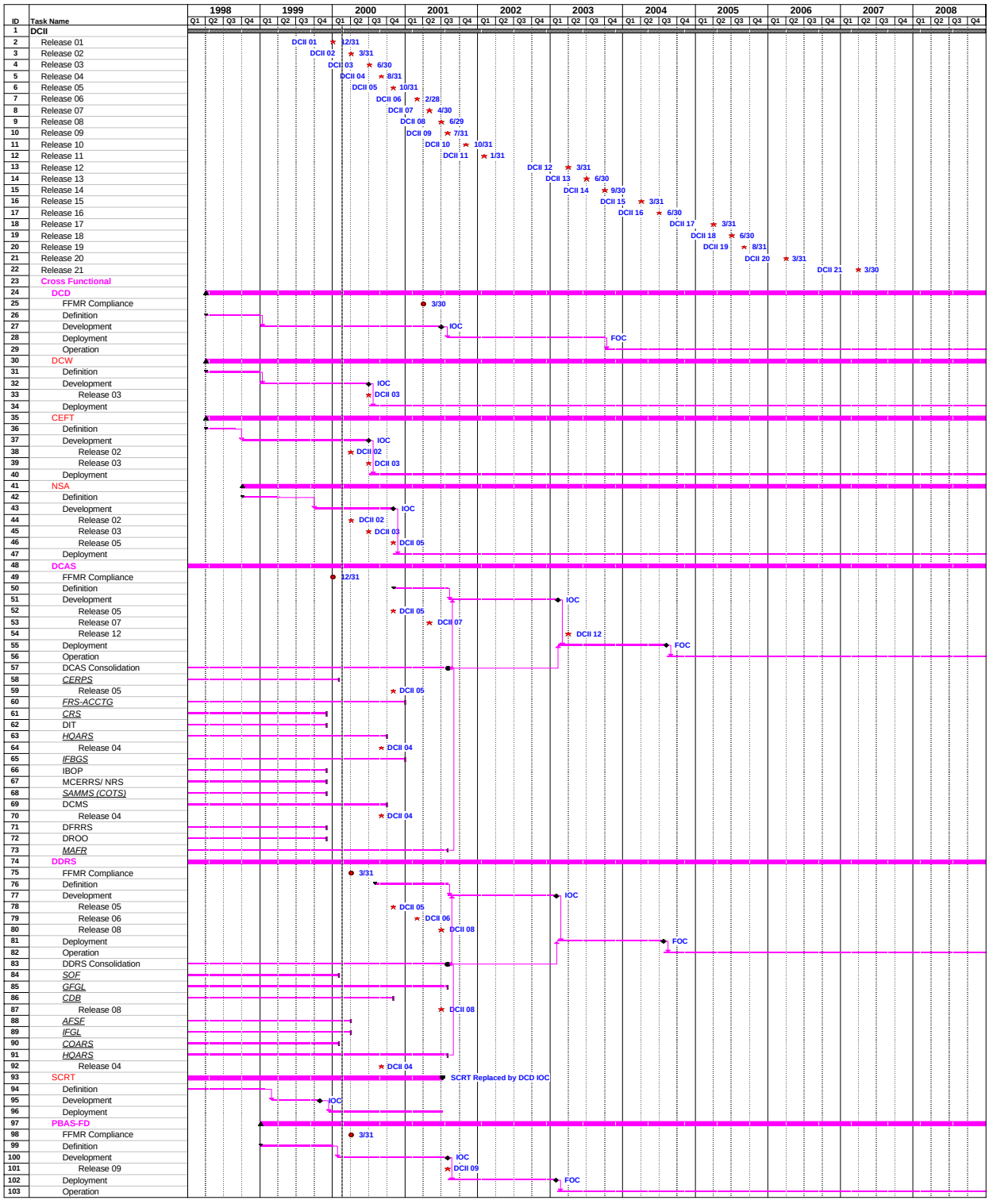


Figure 5. System Migration Integration Schedule.

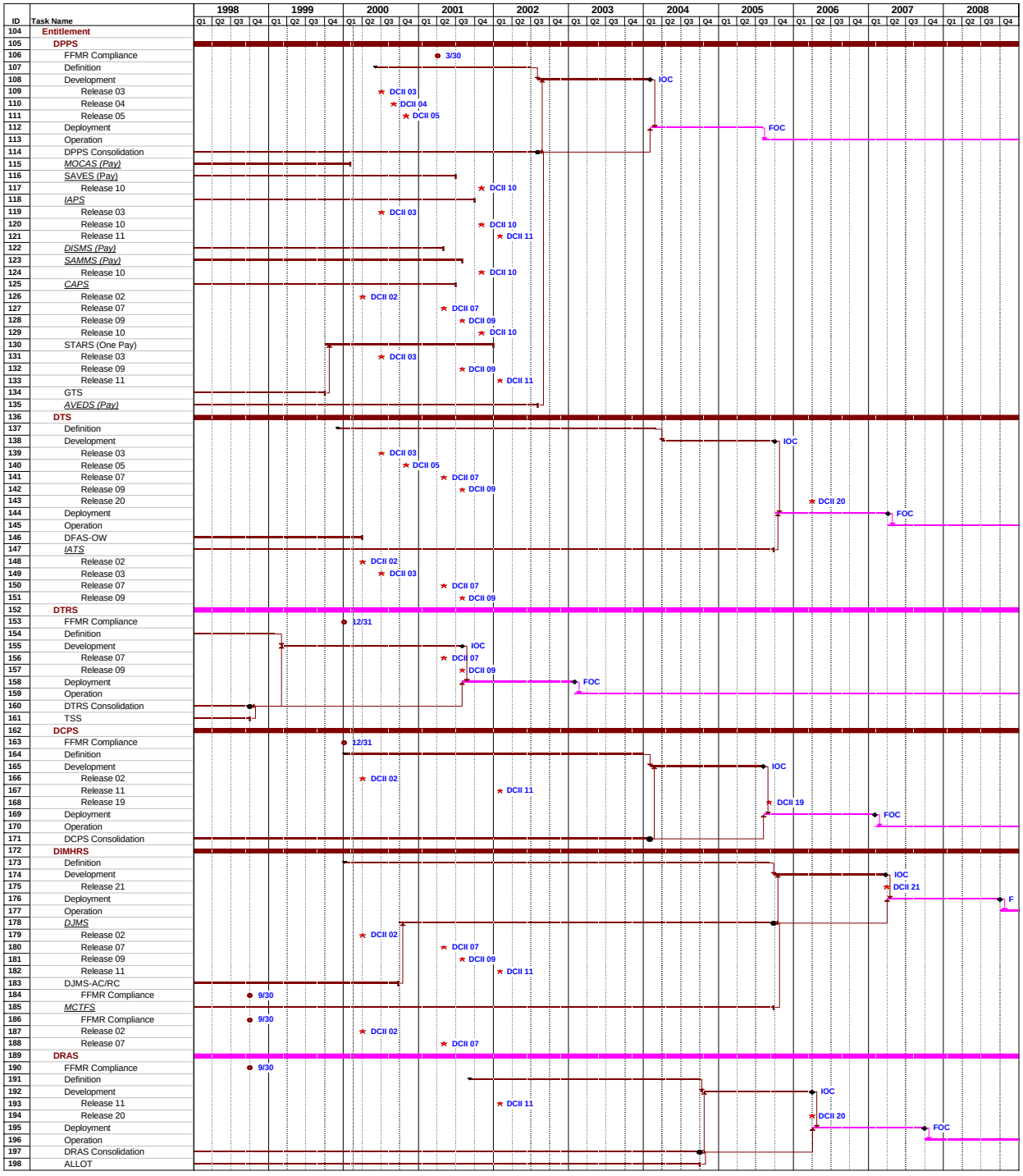


Figure 5. System Migration Integration Schedule. (Continued)

Figure 5. System Migration Integration Schedule. (Continued)

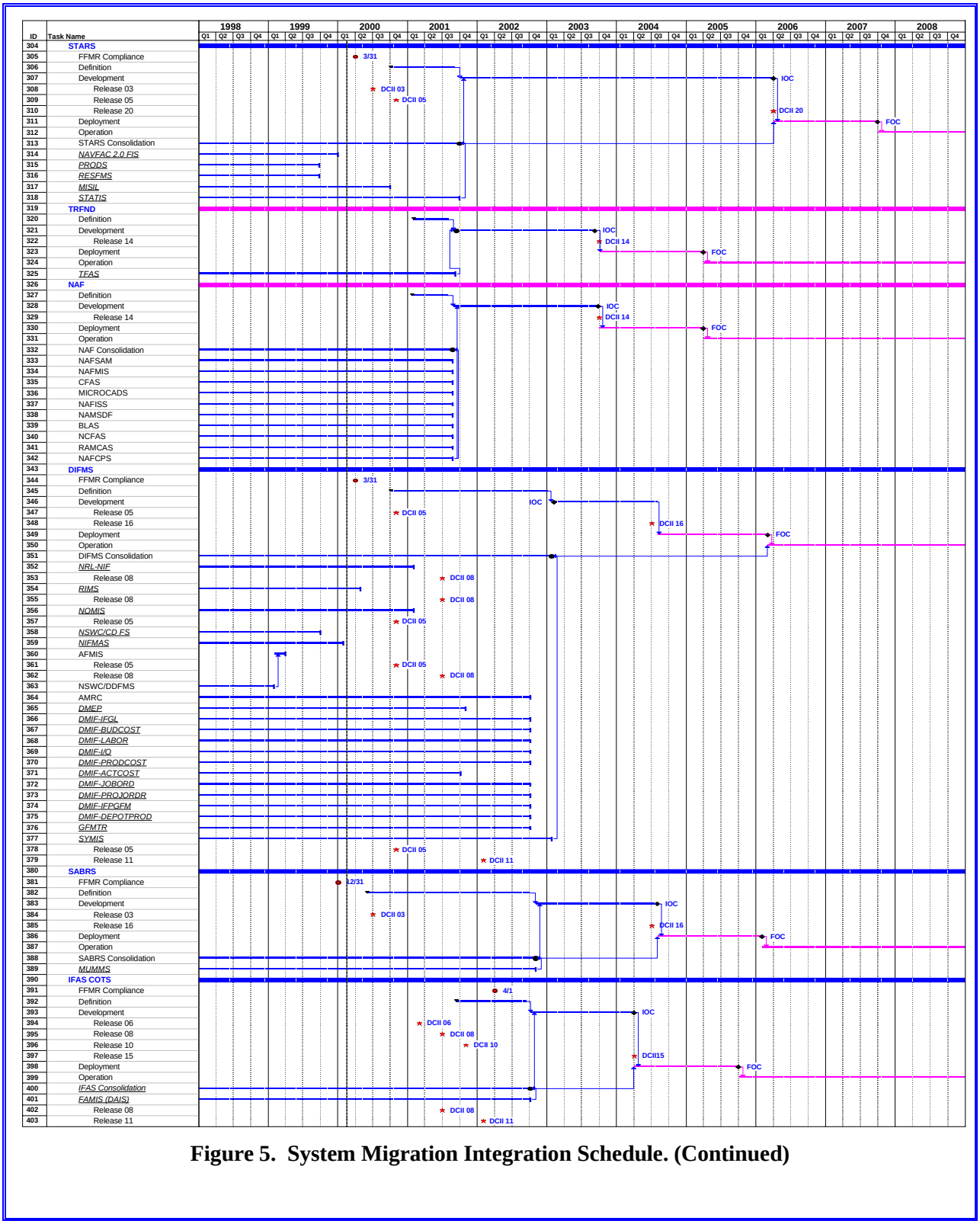


Figure 5. System Migration Integration Schedule. (Continued)

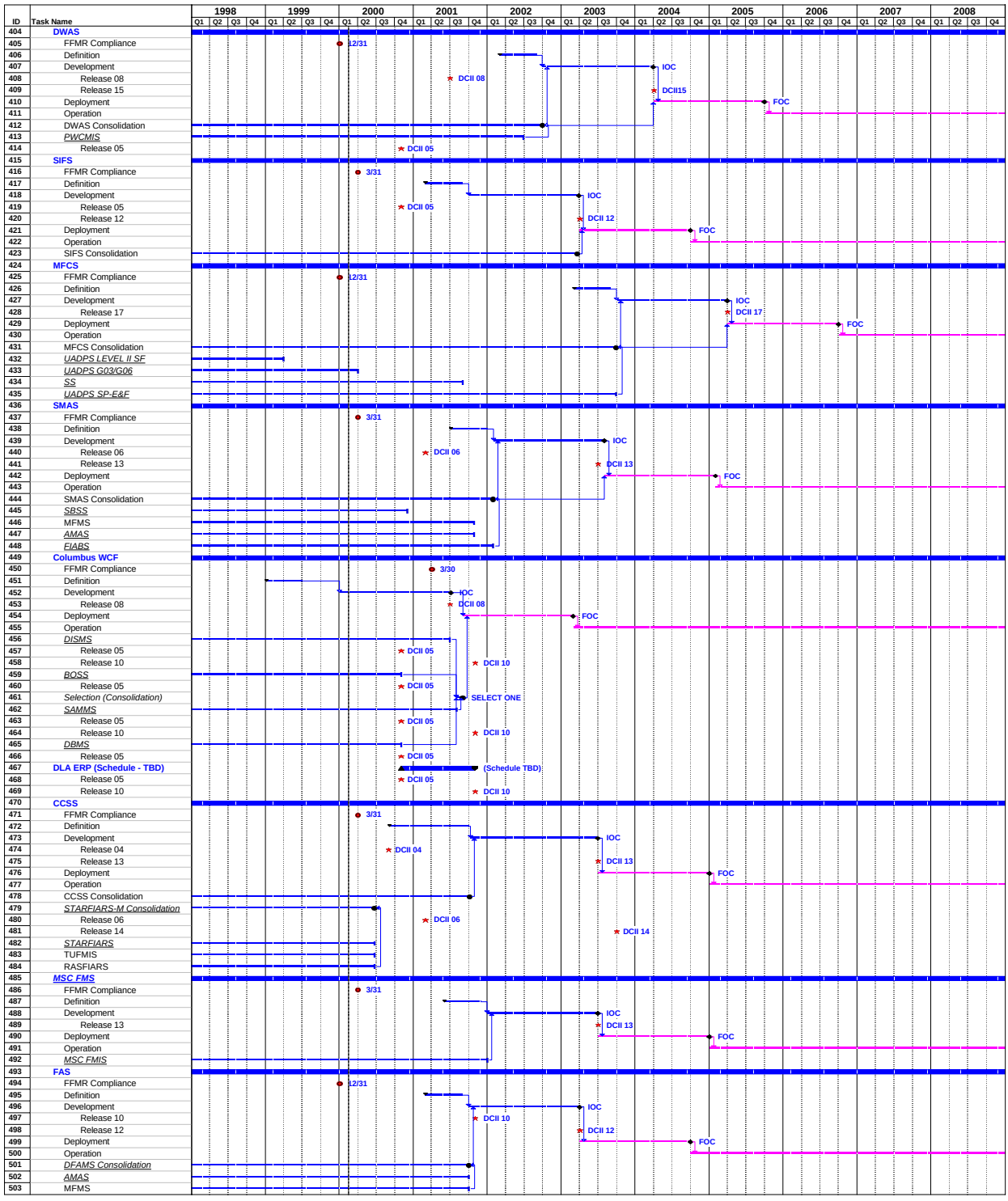


Figure 5. System Migration Integration Schedule. (Continued)

LEGEND:

-- Thick purple lines indicate type III enabling applications, designed to be DCII compliant.

IOC ♦ -- Initial Operational Capability. Full transactional interoperation with the DCD, deployed at one initial site.

FOC ♦ -- Full Operational Capability. Purple line at FOC indicates full transactional interoperation with the DCD, fully deployed.

● -- Migratory System consolidation completed.

-- Legacy system deactivated.

- DCW, CEFT, NSA, and SCRT are not migratory systems, but are included for interfacing and tracking coordination at the enterprise level.
- Red stars correspond to DCII Release dates. Systems linked to each DCII Release shall have a designed interface to the DCD at this time.
- Underlined legacy systems correspond to the 83 systems identified in the DFAS Inventory Listing, November, 1999 IAW the FMFIA.
- Circled diamonds correspond to FFMR compliancy dates.

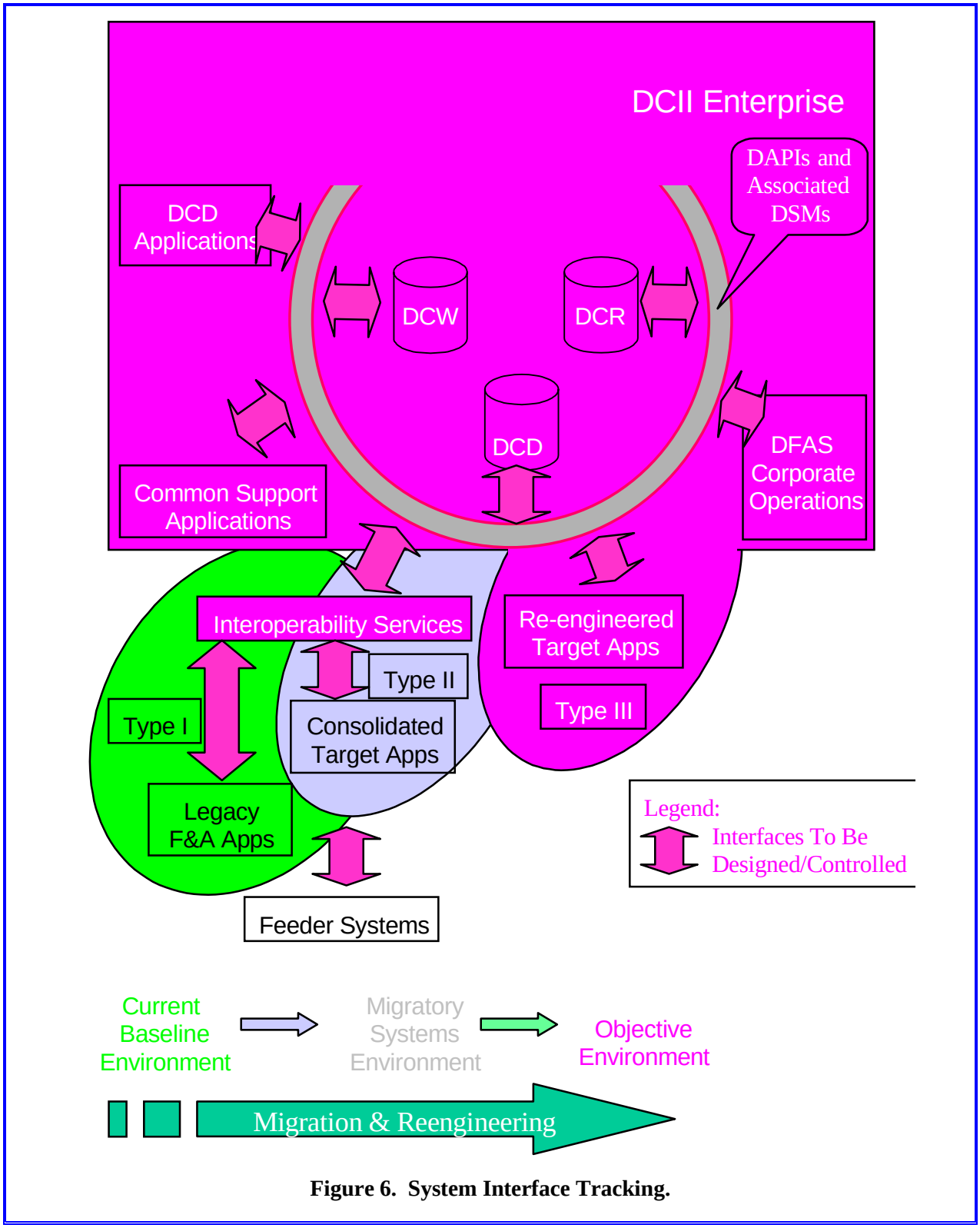


Figure 6. System Interface Tracking.

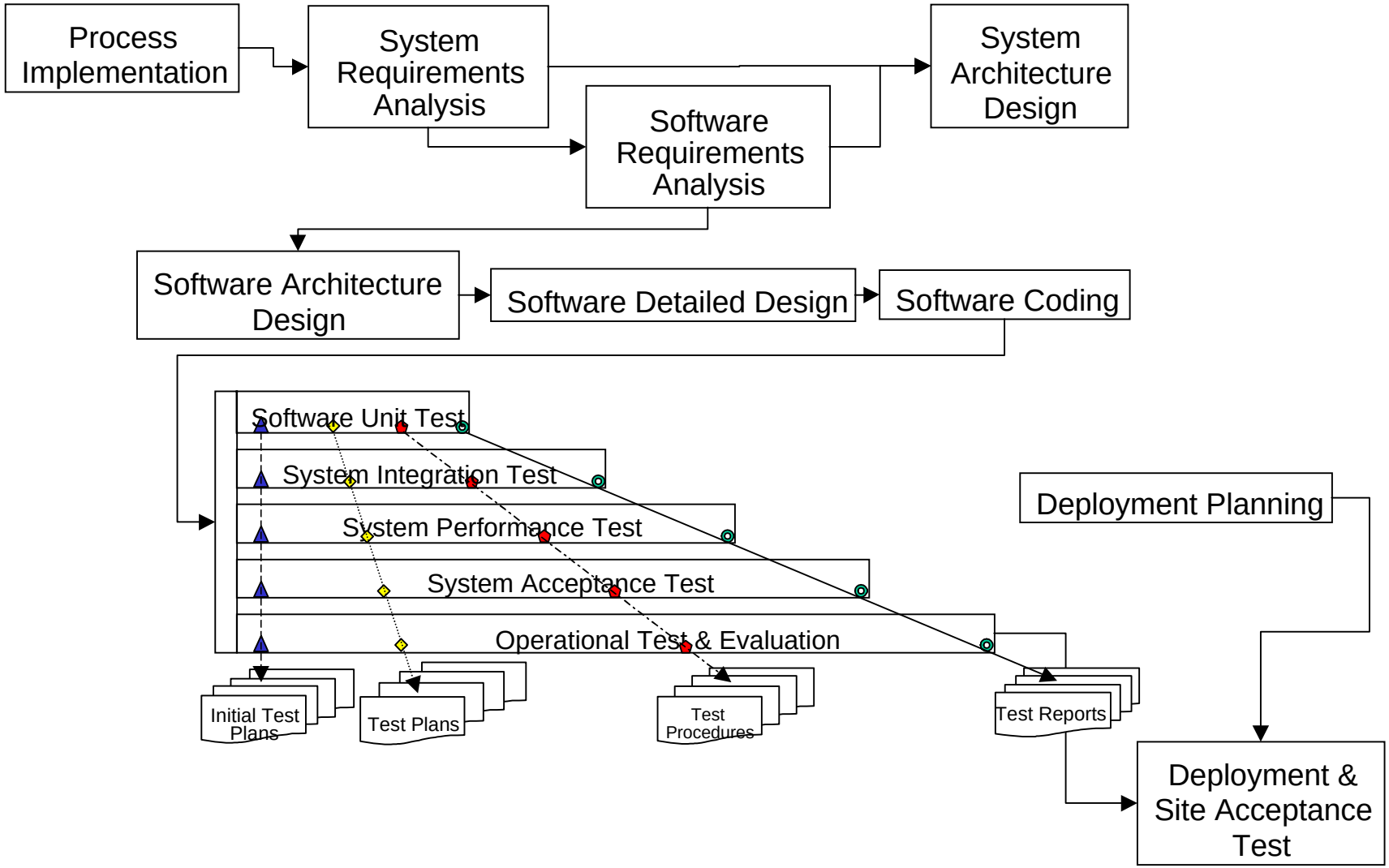


Figure 7. DFAS System Life Cycle Activities

APPENDIX A ACRONYM LIST

ABL	Allocated Baseline
ABS	Automated Balancing System (ABS)
ACRS	Appropriations Control Reporting System (ACRS)
ADS	Automated Disbursing System (ADS)
AFMIS	Automated Financial Management Information System (AFMIS) NSWC Panama City
AFSF	Air Force Stock Fund Accounting and Reporting System (AFSF)
ALLOT	Navy JUMPS (Joint Uniform Military Pay System) Allotment System
AMAS	Avfuel Management & Accounting System (AMAS)
AMRC-CBS	Aerospace Maintenance & Regeneration Center - Cost & Billing System (AMRC-CBS)
AoA	Analysis of Alternatives
AP	Acquisition Plan
APB	Acquisition Program Baseline
ASBP	Automated Strategic Business Plan
ASIFICS	Airlift Services Industrial Fund Integrated Computer System (ASIFICS)--HQ TRANSCOM/Air Mobility
AVEDS	Automated Voucher Examination Disbursing System (AVEDS)
BARS	Base Accounts Receivable System
BEBS	Book Entry Bond System
BLAS	Navy Base Level Accounting System
BOSS	Base Operations Support System
CAFRMS	Centralized Accounting & Finance Resource Management System (CAFRMS)
CAPS	Computerized Accounts Payable System (CAPS)
CARD	Cost Analysis Requirements Description
CCSS	Commodity Command Standard System (CCSS)
CDB	Defense Business Operations Fund Central Database Accounting System (CDB)
CDR	Critical Design Review
CEFMS	Defense Joint Accounting System/CEFMS (Corps of Engineers Financial Management System)
CEFT	Corporate Electronic Funds Transfer
CERPS	Centralized Expenditures & Reimbursement Processing System (CERPS)
CFAS	Central Fund Accounting System (Army/Air Force)
CISIL	Centralized Integrated System for International Logistics (CISIL)
CM	Configuration Management
CMCS	Case Management Control System Accounting System (CMCS)

COARS	Command On-Line Accounting & Reporting System (COARS)
COD	Concept of Operations Description
Columbus WCF	Columbus Working Capital Fund (replaces Columbus AoA)
CPAS	Central Procurement Accounting System (CPAS)
CR/MR	Change Request or Modification Request
CRISPS	Consolidated Return Items Stop Payment System
CRS	Cash Reconciliation System
CUFS	College & University Financial System (CUFS)
DAIS-FAMIS	DECCO Accounting Information System (DAIS) - FAMIS (Accting portion of DECCO)
DBCAS	Dbase Commitment Accounting System
DBDD	Database Design Description
DBMS	Defense Business Management System (DBMS)
DCAS/CRS	Defense Cash Accountability System (DCAS)/CRS
DCD	DFAS Corporate Database
DCII	DFAS Corporate Information Infrastructure
DCMS	Departmental Cash Management System
DCPS	Defense Civilian Pay System
DCRM	Defense Check Reconciliation Module
DCW	Defense Corporate Warehouse
DDMS	Defense Debt Management System
DDRS	Defense Departmental Reporting System (DDRS)/GFGL
DFAMS	Fuels Automated System (FAS)/DFAMS
DFAS-OW	DFAS Order Writer
DFRRS	Departmental Financial Reporting & Reconciliation System
DIFMS	Defense Industrial Financial Management System (DIFMS)
DIFS-L	Defense Integrated Financial System For Foreign Military Sales (DIFS-R)/DIFS-L
DIFS-R	Defense Integrated Financial System For Foreign Military Sales (DIFS-R)/DIFS-L
DIMHRS	Defense Integrated Human Resource System
DISMS	Defense Integrated Subsistence Management System (DISMS)
DIT	Deposit In Transit
DJAS	Defense Joint Accounting System/CEFMS
DJMS	Defense Joint Military Pay System
DJMS-AC/RC	Defense Joint Military Pay System - Active/Reserve Component
DLA ERP	Defense Logistics Agency Enterprise Resource Plan

DMEP	Depot Maintenance Equipment Program System (DMEP)
DMIF-ACTCOST	Maintenance Actual Material Cost System (DMIF-ACTCOST)
DMIF-BUDCOST	Depot Maintenance Budget and Management Cost System (DMIF-BUDCOST) -- Partial replacement
DMIF-DEPOTPROD	Contract Depot Maintenance Production & Cost System (DMIF-DEPOTPROD)
DMIF-GFM	Government Furnished Material & End Item Transaction Reporting System (GFMTR) (DMIF-GFM)
DMIF-I/O	Depot Maintenance Workload Planning & Control System (DMIF-I/O)
DMIF-IFGL	Air Force Industrial Funds General Ledger System (DMIF-IFGL)
DMIF-IFPGFM	Accounting System for Industrial Fund Procurement of GFM (DMIF-IFPGFM)
DMIF-JOBORD	Job Order Production Master System (DMIF-JOBORD)
DMIF-LABOR	Maintenance Labor Distribution and Cost System (DMIF-LABOR) -- Partial replacement
DMIF-PRODCOST	Depot Maintenance Production Cost System (DMIF-PRODCOST) -- Partial replacement
DMIF-PROJORDR	Project Order Control System (DMIF-PROJORDR) -- Partial replacement
DOLPHINS	Daily Orders, Ledger, and Finance System (DOLFINS)
DOPS	Disbursing Office Processing System
DPP	Development Process Plan
DPPS	Defense Procurement Payment System (DPPS)/IAPS
DRAS	Defense Retiree And Annuitant Pay System
DRO	Disbursing Returns Overseas And Afloat Activities – Also DROO
DROO	Disbursing Returns Overseas And Afloat Activities – Also DRO
DSDS	Defense Standard Disbursing System (DSDS)/SRD-1
DT	Development Test
DTRS	Defense Transportation Pay System
DTS	Defense Travel System
DUNES	Daily Universal Net Expenditure System
DWAS	Defense Working Capital Accounting System (DWAS)
EOCR	Executable Object Code Record
FAS	Fuels Automated System (FAS)/DFAMS
FBL	Functional Baseline
FCA	Functional Configuration Audit
FIABS	Financial Inventory Accounting & Billing System (FIABS)
FIS	Facilities Information System 2.0 (FIS)
FMIS	Military Sealift Command (MSC) Commercial-Off-The-Shelf (COTS) (MSC COTS)/FMIS
FOC	Full Operational Capability
FRR	Functional Requirements Review

FRS-ACCTG	Financial Reporting System - Accounting (FRS-ACCTG)
GAFS-R/GAFS-L	General Accounting & Finance System-Reeng (GAFS-R)/GAFS-L
GFGL	Defense Departmental Reporting System (DDRS)/GFGL
GFMTR	Government Furnished Material & End Item Transaction Reporting System (GFMTR) (DMIF-GFM)
GTS	Government Transportation Payment System
HQARS	Headquarters Accounting & Reporting System (HQARS) - Reporting
HYPER	CERPS, Hyperchannel
	FRS, Hyperchannel
IAPS	Defense Procurement Payment System (DPPS)/IAPS
IATS	Integrated Automated Travel System
IBOP	International Balance Of Payments
IFAS COTS	Industrial Fund Accounting System (IFAS) Commercial Off-the-Shelf (COTS)
IFBGS	Interdepartmental Fund Billing Group System (IFBGS)
IFGL	Industrial Fund General Ledger System - Departmental (IFGL)
IOC	Initial Operational Capability
IPC	Integrated Paying and Collecting System (IPC)
JOCAS	Job Order Cost Accounting System II (JOCAS)
LCCE	Life Cycle Cost Estimate
MAFR	Merged Accountability & Fund Reporting System (MAFR)
MCERRS/NRS	Marine Corps Expenditure Reimbursement Reporting/ Navy Register
MCTFS	Marine Corps Total Force System
MFCS	Materiel Financial Control System (MFCS)
MFMS	Missile Fuels Management System (MFMS)
MICROCADS	Army Micro Computer Assisted Central Accounting Div Sys
MISIL	Management Information System International Logistics (MISIL)
MNS	Mission Needs Statement
MOCAS	Mechanization of Contract Administration Services (MOCAS)
MSC FMS	Military Sealift Command (MSC) Financial Management System (FMS) – Migratory System
MSC FMIS	Military Sealift Command (MSC) Financial Management InformationSystem (FMIS) – Legacy system
MTMC-FMS	Military Traffic Management Command Financial Management System (MTMC-FMS)
MUMMS	Marine Corps Unified Material Management System (MUMMS)
NAF	Non-Appropriated Funds
NAFCPS	Nonappropriated Funds Central Payroll System
NAFISS	Nonappropriated Funds Migration System/NAFISS

NAFMIS	Nonappropriated Funds Management Information System
NAFSAM	Air Force Nonappropriated Fund Standard Accounting
NAMSDF	USNA Midshipmen Store And Dairy Farm
NAVFAC 2.0 FIS	NAVFAC Facilities Information System 2.0
NCFAS	NCCOSC Finance And Accounting System
NHFS	Navy Headquarters Financial Systems (NHFS)
NIFMAS	Navy Industrial Fund Financial Management Accounting System (NIFMAS)
NOMIS	Naval Ordnance Management Information System (NOMIS)
NPPIS	Navy Prompt Payment Interest System (NPPIS)
NRL-NIF	Naval Research Laboratory DBOF Financial System, Washington (NRL-NIF)
NSA	Non-Standard Area
NSAGARS	National Security Agency General Accounting & Reporting System (NSAGARS)
NSWC/CD FS	NSWC Carderock Division Financial System (NSWC/CD FS)
NSWC/DD FMS	NSWC Dahlgren, Financial Management System (NSWC/DD FMS)
ORD	Operational Requirements Document
OT	Operational Test
OT&E	Operational Test & Evaluation
PARS	Payment Accounting Reconciliation System
PBAS-FD	Program Budget Accounting System - Program, Funds & Order Distribution (PBAS-FD)
PBAS-OC	Program, Budget And Accounting System - Order Control
PBL	Product Baseline
PCA	Physical Configuration Audit
PR/PRR	Problem Report and Problem Resolution Report
PRODS	PCS Reservation Obligations Database System (PRODS)
PWCMIS	Public Works Center Management Information System (PWCMIS)
RAMCAS	Navy Recreation And Mess Central Accounting System
RAMS	Resource Accounting Management System (RAMS)
RASFIARS	Retail Army Stock Fund Inventory Acctg And Reporting Sys
RATS	Reconciliation Assignment Tracking System
RECERT	Check Recertification
RESFMS	Reserve Financial Management/Active Duty for Training System (RESFMS)
RIMS	NSWC Port Hueneme Division Real-Time Integrated Management System (RIMS)
SAAMSS	Security Assistance Automated Management Support System (SAAMSS)
SABERS	State Accounting & Budget Expenditure Reservation System (SABERS)

SABRS	Standard Accounting Budgeting & Reporting System (SABRS)
SAC 207	Shipboard Unified ADP System, Special Accounting CL 207
SAD	Software Architecture Description
SAMIS	Security Assistance Management Information System (SAMIS)
SAMMS	Standard Automated Material Management System (SAMMS)
SARAD	System Architecture and Requirements Allocation Description
SAVES (Pay)	Standard Automated Voucher Examination System
SBSS	Air Force Standard Base Supply System (SBSS)
SCIR	Software Configuration Index Record
SCMP	Software Configuration Management Plan
SCMR	Software Configuration Management Record
SCR	Source Code Record
SCRT	Standard Contract Reconciliation Tool
SDD	Software Design Description
SDM	System Decision Memorandum
SDSD	Software Development Standards Description
SID	Systems Inventory Database
SIDD	Software Interface Design Description
SIFS	Standard Industrial Fund System (SIFS)
SIP	Software Integration Plan
SMAS	Standard Material Accounting System (SMAS)
SNIPS	Standard Negotiable Instrument Processing System (SNIPS)
SOF	Status of Funds System (SOF)
SOMARDS	Standard Operations & Maintenance, Army Research & Development System (SOMARDS)
SQAP	Software Quality Assurance Plan
SQAR	Software Quality Assurance Records
SRD	Software Requirements Description
SRD-1	Defense Standard Disbursing System (DSDS)/SRD-1
SRS	System Requirements Specification
SS	SHIPSTORES
STANFINS	Standard Finance System (STANFINS)
STARFIARS	Standard Army Financial Inventory Accounting & Reporting System (STARFIARS)
STARFIARS-M	Standard Army Financial Inventory Accounting & Reporting System Modernization (STARFIARS-M)
STARS	Standard Accounting & Reporting System (STARS)

STARS FDR	STARS Funds Distribution & Department Reporting Module (STARS FDR)
STATIS	Student Training Analysis & Tracking Information System (STATIS)
SVD	Software Version Description
SVRR	Software Verification Results Report
SYMIS	Shipyards Management Information System (SYMIS)
T/VP	Test or Validation Plan
T/VPr	Test or Validation Procedures
T/VRR	Test or Validation Results Report
TEMP	Test & Evaluation Master Plan
TFAS	Defense Trust Fund Accounting Migration System/TFAS
TRFND	Trust Fund
TRR	Test Readiness Review
TSS	Transportation Support System
TUFMIS	Tactical Unit Financial Mgmt Information System
UADPS Level II SF	Uniform Automated Data Processing System Level II Stock Fund (UADPS Level II SF)
UADPS SP-E&F	Uniform Automated Data Processing System Stock Points E & F (UADPS SP-E&F)
UADPS-G03/G06	NAVSUP Uniform Automated Data Processing System Inventory Control Points G03/G06 (UADPS-G03/G06)
UDD	User Document Description
UDL	CERPS, Universal Download
WAAS	Washington Headquarters Service (WHS) Allotment Accounting System (WAAS)
WASS-MOD	Washington Headquarters Service (WHS) Allotment Accounting System Modified (WAAS-MOD)